

IN THE CLAIMS:

Please amend the claims as follows:

1. (Currently Amended) A memory device, comprising:
a buffer memory having a plurality of addressable memory registers;
a counter having a plurality of storage registers;
a logic network for writing and reading data into and out of said buffer memory, said logic network for partitioning said buffer memory into a plurality of buffer regions, wherein said logic network writes and reads data from a plurality of unique data classes into said plurality of buffer regions such that each data class is uniquely written into and uniquely read from a different buffer region, and wherein said logic network increments a storage register associated with a buffer region each time that buffer region reaches a predetermined usage level; and
a timer for periodically sending a timing signal to said logic network;
wherein in response to said timing signal said logic network recalls data from said counter registers and re-partitions said buffer memory such that a more utilized buffer region is assigned more addressable memory registers.
2. (Original) A memory device according to claim 1 wherein said logic network assigns a buffer region that is used less often fewer addressable memory registers.
3. (Original) A memory device according to claim 1 wherein each buffer region is always assigned at least a minimum number of addressable memory registers.
4. (Original) A memory device according to claim 1 wherein said predetermined usage level is full.
5. (Previously Presented) A memory device according to claim 1 wherein when a least used buffer region is assigned a minimum number of addressable memory registers the logic network assigns a buffer region that is less often fully utilized but that has more than the minimum number of addressable memory registers.

6. (Original) A memory device according to claim 1 wherein said data classes represent virtual lanes.
7. (Previously Presented) A memory device according to claim 1 wherein said timing signal initiates clearing of said plurality of storage registers.
8. (Currently Amended) A switch network comprising:
 - a network switch;
 - a card adaptor for transmitting and receiving data from said network switch, and
 - a memory device for storing data for and from said card adaptor, said memory having:
 - a buffer memory having a plurality of addressable memory registers;
 - a counter having a plurality of storage registers;
 - a logic network for writing and reading data into and out of said buffer memory, said logic network for partitioning said buffer memory into a plurality of buffer regions, wherein said logic network writes and reads data from a plurality of unique data classes into said plurality of buffer regions such that each data class is uniquely written into and uniquely read from a different buffer region, and wherein said logic network increments a storage register associated with a buffer region each time that buffer region reaches a predetermined usage level; and
 - a timer for periodically sending a timing signal to said logic network;
 - wherein in response to said timing signal said logic network recalls data from said counter registers and re-partitions said buffer memory such that a more utilized buffer region is assigned more addressable memory registers.
9. (Original) A switch network according to claim 8 wherein said logic network assigns a buffer region that is used less often fewer addressable memory registers.
10. (Original) A switch network according to claim 8 wherein each buffer region is always assigned at least a minimum number of addressable memory registers.

11. (Original) A switch network according to claim 8 wherein said predetermined usage level is full.

12. (Previously Presented) A switch network according to claim 8 wherein when a least used buffer region is assigned a minimum number of addressable memory registers the logic network assigns a buffer region that is less often fully utilized but that has more than the minimum number of addressable memory registers.

13. (Original) A switch network according to claim 8 wherein said data classes represent virtual lanes.

14. (Previously Presented) A switch network according to claim 8 wherein said timing signal initiates clearing of said plurality of storage registers.

15. (Previously Presented) A switch network according to claim 8 wherein said card adaptor is a host channel adaptor.

16. (Previously Presented) A switch network according to claim 15 wherein said host channel adaptor is an Infiniband host channel adaptor.

17. (Previously Presented) A switch network according to claim 8 wherein said card adaptor is a target channel adaptor.

18. (Previously Presented) A switch network according to claim 17 wherein said host channel adaptor is an Infiniband host channel adaptor.

19. (Previously Presented) A switch network according to claim 8 further including a central processing unit for sending data to and receiving data from said memory device.

20-22. (Cancelled)